	Application No.	Applicant(s)
Notice of Allowability	10/701,706	BENHASE ET AL.
	Examiner	Art Unit	
	Susan Y. Chen	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 04/02/2007*.

2. ☒ The allowed claim(s) is/are <u>20-22</u>.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the

           International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Response to Amendment

This office action is in response to the amendment filed on April 2, 2007.

Claims 20-22, are pending for examination.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with the attorney on record (John S. Sensny) on June 06, 2007..

AMENDMENT:

To the Application received on April 2, 2007 please modify the following:

20. (Currently Amended) A method <u>for</u> pairing source and target volumes for the purpose of copying data from the source volume to the target volume, comprising the steps:

graphically depicting representations of storage resources in a single view, including the step of displaying said graphical depictions side-by-side with a multitude of

source volumes depicted on a first side of the view and a multitude of target volumes

depicted [[in]] on a second side of the view;

selecting a plurality of pairs of said storage resources using said single view,

including, for each of said pairs, identifying one of said pair as the source volume from

which data are to be copied, and identifying the other of said pair as the target volume

to which the data are to be copied, including the steps of selecting a first source volume,

then selecting a first target volume for said first source volume, then selecting a second

source volume, then selecting a second target volume for the second source volume,

and ~~providing~~ preventing the user from selecting the second source volume until the first

target volume has been selected;

after said plurality of pairs have been selected and before copying any data from

the source volumes to the target volumes, implementing checks to determine if said

selected pairs satisfy predefined rules; and

sending alert messages regarding said selected pairs if said selected pairs do

not satisfy said predefined rules; ~~and wherein:~~

after selecting said pairs, displaying to the user a confirmation panel where the

user [[can]] is allowed to both view and change the volumes of said pairs, said

confirmation panel comprises a table showing the source volumes on one side and the

target volumes on another side; and

the selecting step includes the further step of the user using said table to swap

the target volume in one pair with the target volume in another pair within said

confirmation panel; and

the selecting step includes the step of a user manually identifying said source

volumes and said target volumes; and wherein:

said storage resources are logical subsystems;

the user [[may]] is allowed to only select volumes from one logical subsystem on

a source side and one logical subsystem on a target side; and

if the user tries to select volumes from more than one logical subsystem on the

source side, the user receives an error message stating that the user cannot choose

volumes from more than one logical subsystem.

21.   (Currently Amended) A system for pairing source and target volumes for the

purpose of copying data from the source volume to the target volume, comprising:

means for graphically depicting representations of storage resources in a single

view, including displaying said graphical depictions side-by-side with a multitude of

source volumes depicted on a first side of the view and a multitude of target volumes

depicted [[in]] on a second side of the view; and for selecting a plurality of pairs of said

storage resources using said single view, including for each of said pairs, identifying

one of said pair as the source volume from which data are to be copied, and identifying

the other of said pair as the target volume to which the data are to be copied, including

selecting a first source volume, then selecting a first target volume for said first source

volume, then selecting a second source volume, then selecting a second target volume

for the second source volume, and providing preventing the user from selecting the

second source volume until the first target volume has been selected;

means for implementing, after said plurality of pairs have been selected and before copying any data from the source volumes to the target volumes, checks to determine if said selected pairs satisfy predefined rules, and for sending alert messages regarding said selected pairs if said selected pairs do not satisfy said predefined rules; and wherein:

after selecting said pair, the user is presented with a display of a confirmation panel where the user [[can]] is allowed to both view and change the volumes of said pairs, said confirmation panel comprises a table showing the source volumes on one side and the target volumes on another side; and

the means for graphically depicting includes means for using said table to swap the target volume in one pair with the target volume in another pair within said confirmation panel;

the means for graphically depicting includes means to enable a user to manually identifying identify said source volumes and said target volumes;

said storage resources are logical subsystems;

the user [[may]] is allowed to only select volumes from one logical subsystem on a source side and one logical subsystem on a target side; and

if the user tries to select volumes from more than one logical subsystem on the source side, the user receives an error message stating that the user cannot choose volumes from more than one logical subsystem[[;]].

after selecting said pair, the user is presented with a confirmation panel where the user can both view and changes the volumes of said pair; and

~~the means for graphically depicting further includes means to enable the user to select~~

~~multiple pairs of source and target volumes, and to swap the target volume in one pair~~

~~with the target volume in another pair within said confirmation panel.~~

22.   (Currently Amended) A program storage device readable by ~~machine~~ a

computer, tangibly embodying a program of instructions executable by the ~~machine~~

computer to perform [[method]] program steps for pairing source and target volumes for

the purpose of copying data from the source volume to the target volume, said

[[method]] program steps comprising:

        graphically depicting representations of storage resources in a single view,

including the step of displaying said graphical depictions side-by-side with a multitude of

source volumes depicted on a first side of the view and a multitude of target volumes

depicted [[in]] on a second side of the view;

        selecting a plurality of pairs of said storage resources using said single view,

including for each of said pairs, identifying one of said pair as the source volume from

which data are to be copied, and identifying the other of said pair as the target volume

to which the data are to be copied , including selecting a first source volume, then

selecting a first target volume for said first source volume, then selecting a second

source volume, then selecting a second target volume for the second source volume,

and ~~providing~~ preventing the user from selecting the second source volume until the first

target volume has been selected;

after said plurality of pairs have been selected and before copying any data from the source volumes to the target volumes, implementing checks to determine if said selected pairs satisfy predefined rules; and

sending alert messages regarding said selected pairs if said selected pairs do not satisfy said predefined rules; and wherein:

after selecting said pairs, displaying to the user a confirmation panel where the user [[can]] is allowed to both view and change the volumes of said pairs, said confirmation panel comprises a table showing the source volumes on one side and the target volumes on another side; and

the selecting step includes the further step of the user using said table to swap the target volume in one pair with the target volume in another pair within said confirmation panel; readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for pairing source and target volumes for the purpose of copying data from the source volume to the target volume, said method steps comprising:

graphically depicting representations of storage resources in a single view, including the step of displaying said graphical depictions side-by-side with a multitude of source volumes depicted on a first side of the view and a multitude of target volumes depicted in a second side of the view;

selecting a plurality of pairs of said storage resources using said single view, including for each of said pairs, identifying one of said pair as the source volume from which data are to be copied, and identifying the other of said pair as the target volume to which the

~~data are to be copied , including selecting a first source volume, then selecting a first~~

~~target volume for said first source volume, then selecting a second source volume, then~~

~~selecting a second target volume for the second source volume, and providing the user~~

~~from selecting the second source volume until the first target volume has been selected;~~

~~after said plurality of pairs have been selected and before copying any data from the~~

~~source volumes to the target volumes, implementing checks to determine if said~~

~~selected pairs satisfy predefined rules; and~~

~~sending alert messages regarding said selected pairs if said selected pairs do not~~

~~satisfy said predefined rules; and wherein:~~

~~after selecting said pairs, displaying to the user a confirmation panel where the user can~~

~~both view and change the volumes of said pairs, said confirmation panel comprises a~~

~~table showing the source volumes on one side and the target volumes on another side;~~

~~and~~

~~the selecting step includes the further step of the user using said table to swap the~~

~~target volume in one pair with the target volume in another pair within said confirmation~~

~~panel;~~

the selecting step includes the step of a user manually identifying said source

volumes and said target volumes;

said storage resources are logical subsystems;

the user [[may]] is allowed to only select volumes from one logical subsystem on

a source side and one logical subsystem on a target side;

if the user tries to select volumes from more than one logical subsystem on the

source side, the user receives an error message stating that the user cannot choose

volumes from more than one logical subsystem[[;]].

~~after selecting said pair, the user is presented with a confirmation panel where the user~~

~~can both view and changes the volumes of said pair; and~~

~~the selecting step includes the further step of the user selecting multiple pairs of source~~

~~and target volumes, and swapping the target volume in one pair with the target volume~~

~~in another pair within said confirmation panel.~~

Allowable Subject Matter

Claims 20-22, are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 20-22 are allowable because the prior art on record or that encountered

in searching for the invention, fails to disclose or suggest the features of instant

invention – the claimed system enforces a source to target volume selection criteria in a

single geographical display, thereby to establish a pair relationship between the claimed

source/target volumes. Furthermore, a confirmation panel was developed to display the

selected source/target volumes that facilitates the swapping of one target volume in one

pair with the target volume in another pair for data copying - with all the limitations in a

combination as claimed by applicant.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Y. Chen whose telephone number is 571-272-4016. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mofiz Apu can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Susan Y Chen

Art Unit: 2161

Examiner
Art Unit 2161 *Susan Chen*

June 6, 2007